# CURRICULUM VITAE Leroy E. Hood

**Business Address:** Institute for Systems Biology

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E-mail: <a href="mailto:lhood@systemsbiology.org">lhood@systemsbiology.org</a>

Date and Place of Birth: Missoula, Montana - October 10, 1938

Citizenship: United States

Marital Status: Married 1963, two children

#### Education:

1960 - B.S. California Institute of Technology (Biology)

1964 - M.D. The Johns Hopkins School of Medicine (Medicine)

1968 - Ph.D. California Institute of Technology (Biochemistry) - Immunoglobulins:

Structure, Genetics, and Evolution

#### Professional Experience:

| 1963 - 1964  | NIH Predoctoral Fellowship, California Institute of Technology              |
|--------------|---|
| 1964 - 1967  | NIH Postdoctoral Fellowship, California Institute of Technology             |
| 1967 - 1970  | Senior Investigator, Immunology Branch, GL&C, NCI, National Institutes of   |
|              | Health, Bethesda, MD  |
| 1970 - 1973  | Assistant Professor of Biology, California Institute of Technology          |
| 1973 - 1975  | Associate Professor of Biology, California Institute of Technology          |
| 1975 - 1977  | Professor of Biology, California Institute of Technology                    |
| 1977 - 1992  | Bowles Professor of Biology, California Institute of Technology             |
| 1980 - 1989  | Chairman, Division of Biology, California Institute of Technology           |
| 1981 - 1990  | Director, Cancer Center, California Institute of Technology                 |
| 1989 - 1992  | Director, NSF Science and Technology Center for Molecular Biotechnology,    |
|              | California Institute of Technology  |
| 1992-2000    | Director, NSF Science and Technology Center for Molecular Biotechnology,    |
|              | University of Washington  |
| 1992-1999    | William Gates III Professor, Chairman & Founder, Department of Molecular    |
|              | Biotechnology, School of Medicine, University of Washington                 |
| 1992-1999    | Professor, Departments of Bioengineering and Immunology; Adjunct            |
|              | Professor, Departments of Medicine and Computer Science, University of      |
|              | Washington  |
| 1992-Present | Visiting Associate in Biology, California Institute of Technology           |
| 1999-Present | Professor at Large, Keck Graduate Institute of Applied Life Sciences        |
| 1999-Present | President and Founder, Institute for Systems Biology                        |
| 2000-Present | Affiliate Professor, Departments of Bioengineering, Computer Science, and   |
|              | Immunology, University of Washington  |
| 2002-Present | Affiliate Professor, Department of Microbiology & Immunology, University of |
|              | British Columbia  |

2004-Present Full Faculty Member, Universit of Washington Molecular and Cellular Biology Program

#### **Academic and Professional Honors:**

- 1960 Hinrichs Memorial Award, Caltech: Outstanding Student Leader
- 1960 B.S. with Honors, Caltech
- 1963 Alpha Omega Alpha, Johns Hopkins Medical School
- 1971-76NIH Career Development Award
- 1974 Camille and Henry Dreyfus Teacher-Scholar Grant
- 1977 Endowed Professorship: The Ethel Wilson Bowles and Robert Bowles Professor of Biology
- 1980 Howard Taylor Ricketts Medal, University of Chicago: Outstanding Accomplishment in the Medical Sciences
- 1981 Bridges Award, ARCS Foundation: Communication of Science to the General Public
- 1982 Harvey Lecturer, The Rockefeller University
- 1984 3M Life Sciences Award: Significant Contributions to the Health and Welfare of Mankind
- 1985 The Ernst W. Bertner Memorial Award, The University of Texas System Cancer Center, University of Texas at Houston
- 1985 California Scientist of the Year
- One of the Science Digest's 100 Top Innovators: Development of Highly Sophisticated Instruments for the Synthesis and Analysis of Genes and Proteins
- 1986 Analytical Prize, German Society for Clinical Chemistry Award: "The Development of Microchemical Facilities for High-Sensitivity Protein Sequencing
- 1986 Doctor of Science Honorary Degree, Montana State University, Bozeman, Montana
- 1987 Louis Pasteur Award for Medical Innovation: "Studies that Bring New Perceptions of Nature and Impact Medicine in the Future
- 1987 Fellow of the American Association for the Advancement of Science: "Studies in Molecular Immunology and the Development of Techniques in Protein and Nucleic Acid Chemistry
- 1987 ARCS' Man of Science for Pioneering Research: "Deciphering the Message of DNA"
- 1987 Isco Award for Significant Contributions to the Field of Biochemical Instrumentation, University of Nebraska-Lincoln
- 1987 Doctor of Science Honorary Degree, Mt. Sinai School of Medicine of the City University of New York
- 1987 Dickson Prize in Medicine for Contributions to Immunology and Molecular Biology
- 1987 Albert Lasker Basic Medical Research Award for Studies of Immune Diversity
- 1988 Distinguished Service Award of the 1988 Miami BIO/TECHNOLOGY Winter Symposium for Pioneering the Automation of Protein and DNA Sequencing and Synthesis
- 1988 Rabbi Shai Shacknai Memorial Prize in Immunology and Cancer Research, Hebrew University
- 1988 Doctor of Science Honorary Degree, University of British Columbia, Vancouver
- 1989 Commonwealth Award of Distinguished Service for Work in Developing Instruments Used to Study Modern Biology and Medicine
- 1989 Doctor of Science Honorary Degree, University of Southern California, Los Angeles, California
- 1989 The Cetus Award for Biotechnology, ASM
- 1989 Steven C. Beering Award, Indiana University School of Medicine
- 1990 Doctor of Humane Letters Honorary Degree, Johns Hopkins University

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| 1990 | American College of Physicians Award for Distinguished Contributions in Science as Related to Medicine                       |
| 1991 | Franz Groedel Medal, American College of Cardiology  |
| 1992 | Fellow of the International Institute of Biotechnology, Canterbury, Kent, UK   |
| 1992 | Fifth Annual Duke University Award for Immunologic Research  |
| 1992 | Doctor of Science Honorary Degree, Wesleyan University   |
| 1993 | Scientist of the Year, Research and Development Magazine   |
| 1993 | Initiatives in Technology Award, Partners in Public Education  |
| 1993 | CIBA-GEIGY DREW Award in Biomedical Research, Drew University  |
| 1994 | Lynen Medal, Miami Bio/Technology Winter Symposium   |
| 1994 | Johns Hopkins University Distinguished Alumnus Award   |
| 1994 | American Association for Clinical Chemistry National Lectureship Award   |
| 1994 | National Biotechnology Venture Award   |
| 1995 | Honorary Doctorate of Science, Whitman College, Walla Walla, WA  |
| 1997 | UCLA Gold Medal for Contributions to Science and Medicine  |
| 1997 | Fellow of the American Academy of Microbiology   |
| 1997 | Laguna Niguel Hall of Fame Award for Development of Automated Sequencing and Synthesis of DNA                                |
| 1998 | Beckman Lecturer Award, Association for Laboratory Automation for Pioneering and Original Research in Automation             |
| 1998 | Distinguished Service Award, National Association of Biology Teachers  |
| 1999 | Honorary Elected Member, American Association for Clinical Chemistry   |
| 1999 | Forbes Magazine's Top 25 Most Influential Biotech Leader   |
| 1999 | Honorary Doctorate of Science, Bates College, Lewiston, ME   |
| 2000 | Edman Award, Methods of Protein Structure Analysis (MPSA) 13 <sup>th</sup> International Congress, Charlottesville, Virginia |
| 2001 | The New York Academy of Medicine Award for Discovery in the Service of Health, New York, NY                                  |
| 2001 | The Society for Biomolecular Screening (SBS) Award for Achievement in Biomolecular Screening and Lead Discovery              |
| 2001 | Dudley Smith Licensing Lecture Award, the Licensing Executives Society (LES)   |
| 2001 | Honorary Doctorate of Science, The Pennsylvania State University, University Park,   |
| 2001 | PA   |
| 2001 | The Seattle Times MetropoLIST 150: Most Influential People Who Shaped Seattle in the Past 150 Years                          |
| 2002 | Discover Magazine's 20 Biotech Geniuses  |
| 2002 | Kyoto Prize in Advanced Technology   |
| 2002 | The Economist Innovation Award for Bioscience  |
| 2002 | Genome Technology Allstar, Most Outstanding in Sequencing Technology   |
| 2002 | George R. Stibitz Computer Pioneer Award, Bozeman, MT  |
| 2003 | Andrew C. von Eschenbach Lecture Award, 10 <sup>th</sup> Annual Genitourinay Oncology  |

- Conference, University of Texas MD Anderson Cancer Center, Houston, TX
- Lemelson-MIT Prize for Invention and Innovation, Cambridge, MA 2003
- World Technology Award for Biotechnology 2003
- Howard Vollum Award for Distinguished Accomplishment in Science & Technology, 2003 Reed College, Portland, OR
- Biotechnology Industry Organization (BIO) and Chemical Heritage Foundation (CHF) 6<sup>th</sup> Annual Biotechnology Heritage Award, San Francisco, CA 2004

| 2004 | Association for Molecular Pathology (AMP) Award for Excellence in Molecular     |
|------|---|
|      | Diagnostics, Los Angeles, CA  |
| 2004 | Honorary Professor, Zhejiang University, China                                  |
| 2004 | Honorary Professor, Tsinghua University, China                                  |
| 2004 | Honorary Director, Medical Systems Biology Research Center, Tsinghua University |
|      | School of Medicine, China   |

### Memberships in Professional Organizations:

American Academy of Arts and Sciences

American Academy of Microbiology (American Society for Microbiology), Fellow

American Association for the Advancement of Science

American Association for Clinical Chemistry, Honorary Member

American Association of Immunologists

**American Chemical Society** 

American Institute for Medical and Biological Engineering (AIMBE), College of Fellows

American Medical Association

American Philosophical Society

American Society for Biochemistry and Molecular Biology

Association of American Physicians

Association for Laboratory Automation

Institute of Medicine, National Academy of Sciences

International Society of Molecular Evolution

National Academy of Sciences

Sigma Xi

Society for Integrative and Comparative Biology

World Technology Network, Fellow

#### Lectureships:

| 1974<br>1977<br>1979 | Welch Foundation Conference on Chemical Research, Houston Distinguished Lectureship, Department of Zoology, University of Texas-Austin Mary Huling Edens Lecturer in Medical Genetics, Galveston |
|----------------------|--|
| 1980<br>1980         | Philips Lecturer, Haverford Howard Taylor Ricketts Lecturer, University of Chicago   |
| 1980                 | Camille and Henry Dreyfus Lecturer, Pomona College   |
| 1980                 | Kinyoun Lecturer, National Institutes of Health  |
| 1980                 | Smith Kline and French Lecturer, Vanderbilt University   |
| 1981                 | Dan Campbell Lecturer, Asilomar  |
| 1981                 | Michael Heidelberger Lecturer, Columbia University   |
| 1981                 | Shaffer Lecturer, Washington University School of Medicine   |
| 1981                 | Watkins Lecturer, Wichita State University   |
| 1981                 | Stanhope Bayne-Jones Memorial Lecturer, Johns Hopkins Medical School   |
| 1981                 | Burroughs Wellcome Lecturer, Mt. Sinai Medical School  |
| 1981                 | Jesse Beams Memorial Lecturer, University of Virginia Medical School   |
| 1981                 | Robert W. Woodruff Lecturer, Emory University  |
| 1982                 | John M. Chemerda Lecturer, The Pennsylvania State University   |
| 1982                 | Marrs McLean Lecturer, Baylor College of Medicine  |

- 1982 Carter-Wallace Lecturer, Princeton University
- 1982 Smith-Kline Lecturer, Philadelphia
- 1982 Sommer Memorial Lecturer, Portland
- 1982 Dreyfus Distinguished Lecturer, Indiana University
- 1982 Visiting Professor of Biochemistry, University of California, Riverside
- 1982 Dreyfus Distinguished Lecturer, St. Olaf College
- 1983 Linus Pauling Lecturer, Stanford University
- 1983 Wendell Griffith Lecturer, St. Louis University
- 1983 Syme Lecturer, Walter and Eliza Hall Institute of Medical Research, Melbourne
- 1983 Allied Lecturer, Rutgers University
- 1983 Smith Kline and French Lecturer, University of California, San Francisco
- 1983 Benjamin Knox Rachford Memorial Lecturer, University of Cincinnati
- 1983 Belfort Lecturer, Purdue University
- 1983 Stuart Memorial Lecturer, Brown University
- 1984 Charles Heidelberger Memorial Lecturer, University of Southern California
- 1984 Albert Coons Memorial Lecturer, Harvard Medical School
- 1984 Nellie Fox Distinguished Lecturer, Northwestern Medical School
- 1984 President's Lecturer, Texas A&M
- 1986 J.S. Blumenthal Lecturer, University of Minnesota
- 1986 Wellcome Visiting Professor, University of Michigan
- 1986 Barton Lecturer, University of Oklahoma
- 1986 Maurice Ogur Memorial Lecturer, Southern Illinois University at Carbondale
- 1986 Nieuwland Lecturer in Biological Sciences, the University of Notre Dame
- 1986 R.E. Dyer Lecturer, Bethesda, Maryland
- 1987 Rennebohm Lecturer, University of Wisconsin, Madison
- 1987 The Committee of the Interscience Conference on Antimicrobial Agents and Chemotherapy Lecturer, New York
- 1987 Albert M. Snell Memorial Lecturer, Research Institute, Palo Alto Medical Foundation
- 1987 The 1987 Benedum Lecturer, West Virginia University
- 1987 Herman Beerman Lecturer, The Society for Investigative Dermatology
- 1988 Rabbi Shai Shacknai Memorial Prize Lectureship, Hebrew University
- 1988 James M. Craig Memorial Lecturer, Oregon State University
- 1989 Wayne State University Distinguished Lecturer for the Center of Molecular Biology
- 1989 H. Willard Davis Lecturer, The University of South Carolina
- 1989 The Cape Lecturer, McGill University
- 1989 Jeanette Oshman Efron Lecturer in Molecular Genetics, Baylor College of Medicine
- 1989 Myron Karon Lecturer, Childrens Hospital of Los Angeles
- 1989 Los Angeles Society of Pathologists Lecturer, Los Angeles
- 1990 Visiting Scholar, National Institute of Dental Research, NIH
- 1990 John G. Reinhold Lecturer, University of Pennsylvania
- 1990 Bristol Myers Lecturer, University of Colorado, Boulder
- 1990 Hobart H. Willard Lectureship in Analytical Chemistry, University of Michigan
- 1990 Roy and Eva Hong Lectureship in Molecular Biology, University of Illinois
- 1990 Jeanette Piperno Memorial Lectureship, Temple University
- 1990 Microbiology Graduate Students Distinguished Lecturer, Iowa State University
- 1990 Basil Staples Visiting Professorship, University of Maine
- 1990 Bren Fellows Lectureship, University of California, Irvine
- 1991 Leo S. Weil Memorial Lecturer, Touro Infirmary, Tulane Medical Center and

- Louisiana State University Medical Center, New Orleans
- 1991 Jessie & John Danz Lectureship, University of Washington
- 1991 Kosuge Memorial Lectureship, University of California, Davis
- 1991 Franz Groedel Lecturer, Opening Plenary Session, American College of Cardiology
- 1991 Hoffman-LaRoche Lectureship in Microbiology, the Waksman Institute, Rutgers University
- 1991 The Aser Rothstein Lecturer, Research Institute of the Hospital for Sick Children, Toronto, Canada
- 1991 Distinguished Medical Scientist Lecturer, Ohio State University
- 1991 Richard S. Polacsek Lecturer, Welch Medical Library, Johns Hopkins University
- 1992 William Weigle Memorial Lecturer, Scripps Research Institute
- 1993 Hooke Lecturer, XVI Congress of the Int'l Society for Analytical Cytology
- 1993 Serono Lecturer, American Society of Andrology
- 1993 Beirne B. Carter Lecturer in Immunology, University of Virginia
- 1993 Charles C. & Mary Elizabeth Lovely Verstandig Distinguished Visiting Professor, University of Tennessee Memphis
- 1994 Feodor Lynen Lecturer, The Miami Bio/Technology Winter Symposium
- 1994 Dennis Memorial Lecturer, Baylor College of Medicine
- 1994 Baker Lecturer, American Laryngological Association
- 1994 R.V. Pole Memorial Lecturer, Conference on Lasers and Electro-Optics
- 1994 Ramon Guiteras Lecturer, American Urological Association, Inc.
- 1994 Ernest Cotlove Lecturer, Academy of Clinical Laboratory Physicians and Scientists
- 1994 Lansdowne Lecturer, University of Victoria
- 1994 Zickler Lecturer, State University of New York at Stony Brook
- 1995 Howard Steel Lecturer, Pediatric Orthopaedic Society of North America
- 1995 Phi Beta Kappa Lecturer, Whitman College
- 1995 Paulette Shirley Pritchett Lecturer, University of Alabama at Birmingham
- 1995 Matthew T. Moore Distinguished Lecturer, American Association of Neuropathologists
- 1995 Neel Distinguished Research Lecturer, American Academy of Otolaryngology Head and Neck Surgery
- 1995 I.S. Ravdin Lecturer in Basic Sciences, Clinical Congress of the American College of Surgeons
- 1995 Pokar Kabra Lecturer, University of California, San Francisco
- 1996 Watkins Visiting Professor, Wichita State University
- 1996 Marlene DeLuca Memorial Lecturer, University of California, San Diego
- 1996 O'Leary Visiting Scientist Lecturer, Gonzaga University
- 1997 John P. McGovern Lecturer, Baylor College of Medicine
- 1997 Harvey Lecturer, Rockefeller University
- 1997 Takeru Higuchi Memorial Lecturer, University of Kansas, Lawrence
- 1997 Tadeus J. Wiktor Memorial Lecturer, The Wistar Institute, Philadelphia
- 1998 Walter J. Burdette Lecturer in Medical Science, Yale University Maurice M. Burkholder Lectureship in Oncology, Mountain States Medical Research Institute
- 1998 Eli Lilly Visiting Lecturer, Indianapolis, Indiana
- 1998 Apsler Lecturer, Clark College
- 1999 Heeley Lecturer, The Lawrenceville School
- 1999 Centre for Medicine Research (CMR) International Annual Lecturer, Royal College of Physicians, London
- 1999 MPS Distinguished Lecturer, National Science Foundation
- 1999 Michael Kriegler Memorial Lecturer, University of California, San Diego

- 1999 John C. Krantz, Jr. Distinguished Lecturer, The University of the Sciences in Philadelphia
- 1999 Wilkins Visiting Professor, Boston University Medical Center
- 1999 Willit F. Whitmore Jr. Lecturer, American Urological Association, Dallas, Texas
- 1999 Øersted Lecturer, Technical University of Denmark
- 1998 Storer Life Sciences Lecturer, University of California Davis
- 2000 Paul D. Lamson Memorial Lecturer, Vanderbilt University
- 2000 John & Betty Moore Lecturer on "Science as a Way of Knowing," University of California, Riverside
- 2000 Stevenson Memorial Lecturer, The University of Western Ontario
- 2000 John C. Krantz, Jr. Distinguished Lecturer, The University of the Sciences in Philadelphia
- 2000 G.F. Smith Lecturer, University of Illinois, Urbana
- 2000 Simon Stevin Lecturer, the Delft University of Technology, The Netherlands
- 2001 Alfred Deakin Lecturer, Melbourne, Australia
- 2001 Commencement Speaker, The Pennsylvania State University, "The Challenge of Change"
- 2002 6<sup>th</sup> Andrew H. Weinberg Lecturer, Dana-Farber Cancer Institute, Boston, Massachusetts
- 2002 David Perlman Lecturer for Leadership in the Emerging Field of Systems Biology, for the Division of Biochemical Technology (BIOT) at the American Chemical Society (ACS) National Meeting
- 2003 Waddell Memorial Lecturer, Arizona Cancer Center, Tucson, AZ
- 2003 Andrew C. von Eschenbach Lecture, The University of Texas MD Anderson Cancer Center, Houston, TX
- 2003 Hunter Lecture in Bioengineering, Clemson University, Clemson, SC
- 2003 E. Llewellyn-Thomas Scientific Lecturer, Institute of Biomaterials & Biomedical Engineering, University of Toronto, Ontario
- 2003 American Thoracic Society (ATS) President's Lecture, Seattle, WA
- 2003 Provost's Lecture, Purdue University Sigma Xi, West Lafayette, IN
- 2003 Jack Peter Green Lecturer, Mt. Sinai Medical Center, New York, NY
- 2003 Si Ramo Lecturer, Keck Graduate Institute of Applied Life Sciences, Claremont, CA
- 2003 Janice Antoine Lumpkin Memorial Lecturer, University of Maryland Baltimore County, Baltimore, MD
- 2004 17<sup>th</sup> Schrodinger Lecturer, Imperial College of Science, Technology and Medicine,
- 2004 Florence S. Mahoney Lecture on Aging, National Institutes of Health, Bethesda, MD

#### **Editorial Advisory Duties:**

| 1970-1975 | Advisory Editor, Immunochemistry   |
|-----------|--|
| 1975-1981 | Editorial Advisory Board, <i>Biochemistry</i> `                              |
| 1975-1980 | Advisory Board, Biochemical Genetics   |
| 1975-1980 | Editorial Board, Biological Regulation and Control: A Comprehensive Treatise |
|           | (Plenum)   |
| 1980-1975 | Associate Editor, Journal of Immunology                                      |
| 1981-1985 | Associate Editor, Cell   |
| 1981-1999 | Editorial Board, Journal of Molecular Evolution                              |
| 1986-1996 | Editorial Board. Proteins: Structure, Function and Genetics                  |

| 1987-1989    | Advisory Board, Clinical Immunology and Immunopathology            |
|--------------|--|
| 1988-2003    | Editorial Board, Genomics  |
| 1988-1999    | Editorial Board, BioTechniques                                     |
| 1990-1995    | Editorial Board, Genetic Analysis and Applications                 |
| 1990-Present | Editorial Board, Current Opinion in Biotechnology                  |
| 1991-1999    | Editorial Board, Molecular Phylogenetics and Evolution             |
| 1991-Present | Advisory Editor, Human Mutation                                    |
| 1993-1999    | Editorial Board, <i>Proteins</i>                                   |
| 1994-Present | Editorial Board, Journal of Computational Biology                  |
| 1994-Present | Editorial Board, Molecular Medicine                                |
| 1995-1999    | Editorial Committee, Methods in Molecular and Cellular Biology     |
| 1995-2001    | Editorial Board, Molecular Biotechnology                           |
| 1995-Present | Associate Editor, Genome Science and Technology                    |
| 2000-Present | Advisor, Encyclopedia of the Human Genome                          |
| 1998-Present | Editorial Board, Annual Reviews of Human Genetics and Genomics     |
| 1999-Present | Editorial Associate Board, GeneScreen                              |
| 1999-Present | Advisory Board, Genome Biology                                     |
| 1999-Present | Editorial Board, Functional and Integrative Genomics               |
| 2000-Present | Advisory Board, Data-Rich Genomics Series, Oxford University Press |
| 2000-Present | Advisor, SoundVisions Productions                                  |

## Scientific Advisory Duties:

| 1972-1976 | Study Section of Human Biology Program, National Science Foundation            |
|-----------|--|
| 1973-1977 | Special Grants Committee, American Cancer Society, California Division         |
| 1975-1977 | Chairman, Special Grants Committee, American Cancer Society, California        |
|           | Division   |
| 1975      | Chairman of FASEB Conference on Genetics and Biological Evolution              |
| 1979-1981 | Genetics Study Section, National Institutes of Health                          |
| 1979-1984 | Visiting Committee for the Department of Biology, MIT                          |
| 1980      | Committee to Select California Scientist of the Year                           |
| 1980-1985 | Scientific Advisory Board, Max-Planck-Institut für Experimental Medizin at     |
|           | Göttingen  |
| 1981      | Chairman, Committee to Select California Scientist of the Year                 |
| 1982-1987 | Visiting Committee for Cellular and Developmental Biology, Harvard             |
|           | University   |
| 1985-1990 | Scientific Advisory Board, Cleveland Clinic                                    |
| 1987-1992 | Scientific Advisory Committee, Cancer Center at the University of Chicago      |
| 1987-1991 | Scientific Advisory Committee, Department of Medicine, University of Alabama   |
| 1987-1999 | External Advisory Committee, USC Comprehensive Cancer Center                   |
| 1989-1992 | Genome Advisory Committee, National Institutes of Health                       |
| 1989-1999 | Genome Advisory Committee, Department of Energy                                |
| 1989-1994 | Commission on Life Sciences, National Academy of Sciences                      |
| 1989-1997 | Executive Committee, Human Genome Organization                                 |
| 1989-1992 | California Council on Science and Technology                                   |
| 1990-1994 | Board of Scientific Advisors, Jane Coffin Childs Memorial Fund                 |
| 1990-1992 | Science Advisory Board, Discovery Museum of Orange County                      |
| 1990-1999 | Scientific Advisory Board for Biological Sciences, Molecular Simulations, Inc. |

| 1990-1999    | Advisory Board, Network of Centres of Excellence, University of British Columbia   |
|--------------|--|
| 1991-1999    | Advisory Board, Human Genome Center, Lawrence Berkeley Laboratory                  |
| 1991-1999    | Board of Directors, Sigma Xi   |
| 1991-1997    | Board of Directors, The Canadian Genetic Disease Network                           |
| 1992-Present | Board of Directors, The Seaver Institute   |
| 1993-1999    | Executive Committee, Medical Scientist Training Program, University of Washington  |
| 1993-1999    | Science Policy Symposium Committee   |
| 1995-1999    | Scientific Advisory Board, CaP CURE Association                                    |
| 1995-1998    | National Advisory Council for Human Genome Research, National Institutes of Health |
| 1995-1999    | Governing Board, National Nanofabrication, National Science Foundation             |
| 1995-1999    | Committee for the Faculty Seminar in Science and Technology Policy                 |
| 1995-2003    | Biological & Environmental Research Committee (BERAC), Department of Energy        |
| 1996-2002    | Board of Directors, Washington Biotechnology & Biomedical Association              |
| 1997-1998    | Committee on Science Education K-12, National Research Council                     |
| 1998-1999    | Scientific Advisory Committee, Oak Ridge National Labs, Life Sciences Division     |
| 1999-2002    | National Council on Science & Technology Education                                 |
| 1999-2002    | Laboratory Advisory Committee, Pacific Northwest Laboratory                        |
| 2000-Present | Scientific Advisory Board, Burnham Institute                                       |
| 2000-Present | _  |

#### Research Interests:

Genetics and Evolution of Multigene Systems Genetics and Evolution of Antibody Diversity Organization of Antibody and MHC Genes Chemistry and Genetics of Eukaryotic Membrane Proteins Protein Evolution Protein Chemistry and Immunochemistry Microchemical Instrumentation

#### Non-Scientific Interests:

Photography Mountaineering and climbing Science fiction Running

#### **BIBLIOGRAPHY**

#### **Patents** Α.

Hood, L. E. and M. W. Hunkapiller. (1981) Apparatus for the Performance of Chemical Processes. U.S. Patent No. 4,252,769. 1.

- 2. Hood, L. E., M. W. Hunkapiller, W. J. Dreyer, R. M. Hewick, and A. W. Stark. (1986) Method for the Sequential Performance of Chemical Processes. U.S. Patent No. 4,603,114.
- 3. Hood, L.E., M.W. Hunkapiller, W.J. Dreyer, R.M. Hewick, and A.W. Stark. (1986) Conversion Flask for Sequential Performance Apparatus. U.S. Patent No. 4,610,847.
- Hood, L.E., M.W. Hunkapiller, W.J. Dreyer, R.M. Hewick, and A.W. Stark. (1987)
   Apparatus for the Sequential Performance of Chemical Processes. U.S. Patent No. 4,704,256.
- 5. McGrath, M.S., I.L. Weissman, and L. Hood. (1988) Diagnostic and Therapeutic Aspects of Receptor-Mediated Leukemogenesis. U.S. Patent No. 4,786,590.
- 6. Hood, L. E., I. L. Weissman and M. S. McGrath. (1989) Diagnostic Reagents Based on Unique Sequences Within the Variable Region of the T Cell Receptor and Uses Thereof. U.S. Patent No. 4,886,743.
- 7. Landegren, U. and L. Hood. (1991) Method of Detecting a Nucleotide Change in Nucleic Acids. U.S. Patent No. 4,988,617.
- 8. Smith, L.M., L.E. Hood, M.W. Hunkapiller, and T.J. Hunkapiller. (1992) Automated DNA Sequencing Technique. U.S. Patent No. 5,171,534.
- 9. Smith, L.M., L.E. Hood, M.W. Hunkapiller, and T.J. Hunkapiller. (1998) Automated DNA Sequencing Technique. U.S. Patent No. 5,821,058.
- 10. Li, L. and L. Hood. (2000) Human Jagged Polypeptide, Encoding Nucleic Acids and Methods of Use. U.S. Patent No. 6,136,952.
- 11. Smith, L.M., L.E. Hood, M.W. Hunkapiller, T.J. Hunkapiller and C.R. Connell. (2001) Tagged Extendable Primers and Extension Products. U.S. Patent No. 6,200,748 B1.
- 12. Prusiner, S.B., P.Tremblay, R. Moore, D. Westaway, L.E. Hood and I. Lee. (2001) PrP-Like Gene. U.S. Patent No. 6,277,970 B1.
- 13. Loeb, L.A., L. Hood and M. Suzuki. (2002) Thermostable Polymerase Having Altere Fidelity and Method of Identifying and Using Same. U.S. Patent No. 6,395,524 B2.
- 14. Hood, L.E. and T.E. Ideker. (2003) Multiparameter Integration Methods for the Analysis of Biological Networks. U.S. Patent No. 2003/0130798 A1.

## B. Books and Book Chapters

- Sanders, B. G. and L. Hood. (1971) Antigenic Properties and Electrophoretic
   Heterogeneity of Polypeptide Chains from IgG Immunoglobulins. Studies in
   Genetics VI, 29-47. Ed. M. R. Wheeler. University of Texas Publications, Austin,
   Texas.
- 2. Wood, W. B., J. Wilson, R. Benbow and L. Hood. (1974) 1<sup>st</sup> Edition, (1981) 2<sup>nd</sup> Edition. Biochemistry: A Problems Approach. Benjamin, Inc., Menlo Park, CA.
- 3. Hood, L., J. Wilson and W. B. Wood. (1975) Molecular Biology of Eucaryotic Cells. W. A. Benjamin, Inc., Menlo Park, CA.
- 4. Silver, J. and L. Hood. (1976) Genetic and Evolutionary Implications of the Partial Amino Acid Sequences of H-2K and H-2D Alloantigens. The Role of Products of the Histocompatibility Gene Complex in Immune Responses, 677-689.

  Academic Press, Inc.

- Cecka, M., M. McMillan, D. Murphy, J. Silver, H. McDevitt and L. Hood. (1978) Partial Amino Acid Sequence Analyses of la Molecules. IrGenes and la Antigens, 275-286. Academic Press, Inc.
- 6. Hood, L., I. Weissman and W. B. Wood. (1978) **Immunology**. W. A. Benjamin, Inc., Menlo Park, CA.
- 7. Weissman, I., L. Hood and W. B. Wood. (1978) **Essential Concepts in Immunology**. W. A. Benjamin, Inc., Menlo Park, CA.
- 8. Davis, M., P. Early, K. Calame, D. Livant and L. Hood. (1979) The Organization and Rearrangement of Heavy Chain Immunoglobulin Genes in Mice. **Eucaryotic Gene Regulation**, 393-406. Academic Press, Inc.
- 9. Strader, C. D., M. W. Hunkapiller, L. E. Hood and M. A. Raftery. (1980) Determination of the Subunit Stoichiometry of the Acetylcholine Receptor from *Torpedo californica* by Amino Terminal Sequence Analysis. **Psychopharmacology and Biochemistry of Neurotransmitter Receptors**, 35-46.
- 10. Hood, L., J. Griffin, S. Crews, H. Huang, M. Kronenberg and S. Kim. (1981) Antibody and MHC Genes. **Immunoglobulin Idiotypes**, 805-824. Academic Press, Inc.
- 11. Kronenberg, M., E. Kraig, S. J. Horvath and L. E. Hood. (1982) Cloned T Cells as a Tool for Molecular Geneticists: Approaches to Cloning Genes which Encode T Cell Antigen Receptors. **Isolation, Characterization, and Utilization of T Lymphocyte Clones**, 467-491. Academic Press, Inc.
- 12. Huang, H. and L. Hood. (1983) Origins of Antibody Diversity. Recombinant DNA and Medical Genetics, 97-104.
- 13. Hood, L. E., Weissman, I. L., Wood, W. B. and Wilson, J. H. (1984) **Immunology**. 2<sup>nd</sup> Edition. Benjamin/Cummings, Menlo Park, CA.
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9/83 - 9/89 - Associate Professor, University of Washington at Seattle: Department of Management Science (starting 7/85); Department of Finance (starting 7/85); Department of Finance, Business Economics and Quantitative Methods (9/83 - 7/85); Department of Statistics (9/83 - 6/87).

9/79 - 8/83 - Assistant Professor, Department of Statistics, Princeton University.

9/77 - 5/79 - Assistant Professor, Department of Statistics, University of Wisconsin at Madison.

#### Education:

1975 - 77 - Ph.D., Stanford University, Department of Statistics.

1973 - 75 - M.S., Stanford University, Department of Mathematics.

1969 - 73 - B.A., Boston University, Summa Cum Laude with Distinction in Mathematics and Physics.

# Honors and Awards:

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Burlington Northern Foundation Faculty Achievement Award, 1992.

Research Associate, Center for the Study of Futures Markets, Columbia University, 1988.

Excellence in Teaching Award, Executive MBA Program, University of Washington, 1988.

Research Opportunities in Auditing Award, Peat Marwick Foundation, 1987.

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Excellence in Teaching Award, Executive MBA Program, University of Washington, 1986.

Professor of the Quarter, MBA Program, University of Washington, Fall, 1983.

Phi Beta Kappa, elected 1973.

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Robert E. Bruce Prize for Excellence in Mathematics, 1973.

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9/01 - 6/02 - Adjunct Professor of Genome Sciences, University of Washington at Seattle.

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4/97-6/97 - Visiting Professor, Université de Paris I - Pantheon-Sorbonne, France.

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8/82 - 8/83 - Visiting Assistant Professor of Biostatistics and Visiting Scholar of Statistics, University of Washington at Seattle.

6/81 - 8/81 - Visiting Scholar, Department of Statistics, University of Washington at Seattle.

6/80 - 8/80 - Visiting Scholar, Department of Statistics, Stanford University.

5/79 - 8/79 - Visiting Staff Member, Statistics Group, Los Alamos Scientific Laboratories.

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Research Support:

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References,

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## **PUBLICATIONS**

| 1977 | <u>Random Coverage Problems in Geometrical Probability with an Application to Time Series Analysis.</u> Ph.D. Thesis, Department of Statistics, Stanford University.                      |
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| 1978 | Random Space Filling and Moments of Coverage in Geometrical Probability. (1978).<br><u>Journal of Applied Probability</u> 15, 340-355.  |
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| 1982 | Geometric Data Analysis: an Interactive Graphics Program for Shape Comparison. In <u>Modern Data Analysis</u> , edited by R.L. Launer and A.F. Siegel, 103-122. New York: Academic Press. |
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| 1982 | Rarefaction and Taxonomic Diversity. <u>Biometrics</u> 38, 235-241. (with R.Z. German).   |
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- 1982 Quadrature Designs for Unbiased Estimation of the Integral of Any Function. <u>Proceedings</u>
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- 2000 <u>The Excel Guide for use with Practical Business Statistics, Fourth Edition</u>. Burr Ridge, Illinois: Irwin / McGraw-Hill.
- 2000 <u>Instructor's Manual to Accompany Practical Business Statistics, Fourth Edition</u>. Burr Ridge, Illinois: Irwin / McGraw-Hill.
- 2000 Chinese Translation of <u>Practical Business Statistics</u>, <u>Fourth Edition</u>. 700 pages. Burr Ridge, Illinois: Irwin / McGraw-Hill.
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- Diversification in the Presence of Taxes. (with D.M. Stein, P. Narasimhan, and C.E. Appeadu). *The Journal of Portfolio Management* 27, 61-71.
- Testing for Differentially-Expressed Genes by Maximum-Likelihood Analysis of Microarray Data. (with T. Ideker, V. Thorsson, and L. Hood). *Journal of Computational Biology* 7, 805-817.
- The Efficient Use of Conditioning Information in Portfolios. (with W.E. Ferson). *The Journal of Finance* **56**, 967-982.
- A Three-Stage Clinical Trial Design for Rare Disorders. (with V.E.A. Honkanen, J.P. Szalai, V. Berger, B.M. Feldman, and J.N. Siegel). *Statistics in Medicine* **20**, 3009-3021.
- Spectral Analysis of Distributions: Finding Periodic Components in Eukaryotic Enzyme Length Data. (with E. Kolker, B.C. Tjaden, R. Hubley, and E.N. Trifonov). <u>OMICS: A Journal of Integrative Biology</u> 6, 123-130.
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